

## 4.0 ENVIRONMENTAL CONSEQUENCES

### 4.1 Social/Economic

#### 4.1.1 Community Cohesion

Community cohesion represents a sum of the familial, civic, and governmental relationships within a geographic area. Strong community cohesion is characterized by extensive interaction among neighbors and friends, participation in community activities and organizations, and involvement in local government and politics. Typically, cohesive communities have several generations of families, extended families, and strong informal (non-governmental) social support networks which can provide for child care, emergency assistance, and spiritual guidance, among many other possibilities. Transportation and land use changes can have profound effects on community cohesion. People and relationships can be separated by barriers and greater distances, adversely affecting their ability to see and communicate with one another easily. Alternatively, transportation facilities can tie communities more closely together, making it easier for people to interact.

The overall impact of the proposed project can be expected to have some negative and positive impacts. The construction of a four-lane limited- or controlled-access facility may make it more difficult for some neighbors to interact because they will have to walk or drive longer distances to see one another. Displacements may cause community members to move some distance from their present community. However, no communities will be divided to an extent that would prohibit access or make it extremely inconvenient for community members to continue present relationships. People generally identify with localities such as the city of Galena, the villages of Elizabeth, Stockton, and Lena, the township of Woodbine and the Galena Territory. The cores of these communities will remain intact; the proposed Alternates will bypass these towns. While some members of project area communities may have to travel slightly longer distances to their destinations, the long-term impact of such inconveniences on community cohesion will be minor. People, families, farms, and businesses which are displaced may move to places more distant from their present communities, but closer to another community. Therefore, the social impacts of the relatively modest number of displacements associated with the proposed project will most likely in the long run prove to be minor.

Community cohesion in the project area may be strengthened in some ways by the proposed project. Travel times between communities will be reduced, facilitating more interaction among towns between Galena and Freeport. Improved accessibility among communities can lead to a beneficial interchange of ideas and views, and make it possible for people to extend networks of friends, and for more distant relatives to see one another more often.

#### 4.1.2 Access Changes

Access changes can affect homeowners and farmers by increasing or decreasing their travel times to their normal destinations. In some cases, the initial inconvenience of new routes might be substantial. Safety issues can also be involved because new access routes might require U-turns in the new four-lane facility. Access impacts can also be caused by road closures, roadway relocations, or driveway relocations. These types of impacts occur to varying degrees with all of the Alternates.



#### **4.1.2.1 Roadway Closures and Relocations**

Tables 4-1 through 4-9 summarize the roadway access changes that can be expected with each of the Alternates. These include roadway relocations and roadway closures. The locations of roadway closures are shown in Figures 4-1 to 4-8. Alternates 1 and 2 involve the least number of roadway closures (4 each). These occur on local roads near Woodbine, Lena (2 roads), and at the eastern terminus of the project near Bolton Road. In each of these cases, the existence of nearby Freeway interchanges will offset the effects of the roadway closures.

Alternates 3 through 10 involve between 6 and 8 local road closures, depending upon the Alternate. These road closures occur near the intersection of Illinois Route 84 and U.S. Route 20 west of Elizabeth (with Alternates 7 - 10, which include a more northerly Freeway route), south of Elizabeth, Woodbine, Lena, and at the eastern terminus of the project. Most of these road closures are near proposed interchanges, and would therefore involve minimal, if any, inconvenience to current residents. One road closure, which would occur with Alternates 3, 4, 7, and 9 (none of which involve the tunnel) is located several miles from any proposed interchanges. This would involve Read Road, which would be diverted southward to connect with Bethel Road, thereby minimizing impacts.

Alternates 11 and 12 involve significantly more local road closures than Alternates 1-10. These occur in three principal groupings: in the vicinity of Elizabeth (6 closures); near Stockton (3 closures); and between Lena and Eleroy (5 closures, mostly with Alternate 11). There is also one road closure in Woodbine, and one at the eastern terminus of the project. About half of these road closures are near proposed interchanges, and would therefore involve minimal, if any, inconvenience to current residents. Closures of Elizabeth-Hanover, Burton, Pleasant Hill, and Madison Roads near Elizabeth will be mitigated by the construction of a new local road connecting Elizabeth-Hanover Road with Madison Road, thereby creating good access to a proposed interchange west of Pleasant Hill Road, which would in turn provide improved access to old U.S. Route 20 immediately west of Elizabeth. Near Stockton, South Mapes and Park roads will be cul-de-saced near their current intersections with U.S. Route 20, and old U.S. Route 20 will be terminated near Willow Road. Each of these road closures will cause some inconvenience to local traffic. Between Lena and Eleroy, old U.S. Route 20 will be terminated at five locations with Alternate 11. Alternates 11 and 12 will permit frequent local access at several intersections in this area, minimizing the impacts of closing old U.S. Route 20. One closure of U.S. Route 20, immediately southeast of Lena, is present in Alternates 11 and 12. This closure will be mitigated with new local road construction between Illinois Route 73 and Wagner Road. However, problems may be created in this area because of the interruption of traffic from south of U.S. Route 20.

There will also be several roadway relocations associated with each Alternate. However, these will be very local in nature, and should not cause any significant inconvenience.

#### **4.1.2.2 Access Changes for Farms and Residences**

Access changes for farms and residences are affected by roadway closures and relocations as well as closures or relocations of driveways. The access changes expected for farms and residences are summarized on Tables 4-10 through 4-18.



**TABLE 4-1**  
**ROADWAY ACCESS CHANGES**  
**U.S. ROUTE 20, GALENA TO FREEPORT**  
**SUMMARY COMPARISON OF ALTERNATES**

<b>Alternate Number</b>	<b>Route Description</b>	<b>ROADWAY ACCESS CHANGES</b>		
		<i>Roadway Relocations</i>	<i>Roadway Closures</i>	<i>Total Roadway Changes</i>
1	Long Hollow Freeway	6	4	10
2	Long Hollow Freeway w/Stockton Alt.	7	4	11
3, 7	Irish Hollow Freeway	6	6-8*	12-14*
4, 9	Irish Hollow Freeway w/Stockton Alt.	7	6-8*	12-14*
5, 8	Irish Hollow Freeway w/Tunnel	6	6-8*	12-14*
6, 10	Irish Hollow Freeway w/Tunnel w/Stockton Alt.	7	6-8*	12-14*
11	Expressway Eleroy Alt.	12	17	29
12	Expressway Lena Alt.	12	12	24

\*The larger number would be associated only with the Upper Irish Hollow Alternates (7-10)  
The Preferred Alternate is highlighted.

**TABLE 4-2**  
**ROADWAY ACCESS CHANGES**  
**U.S. ROUTE 20, GALENA TO WOODBINE**  
**LONG HOLLOW FREEWAY ALTERNATES**  
**(Western Parts of Alternates 1 And 2)**

<b>Location</b>	<b>ROADWAY ACCESS CHANGES</b>		
	<i>Roadway Relocations</i>	<i>Roadway Closures</i>	<i>Total Roadway Changes</i>
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township	3		3
Woodbine Township	1	1	2
<b>Jo Daviess County Total</b>	<b>4</b>	<b>1</b>	<b>5</b>
<b>Total Roadway Changes</b>	<b>4</b>	<b>1</b>	<b>5</b>



**TABLE 4-3  
ROADWAY ACCESS CHANGES  
U.S. ROUTE 20, GALENA TO WOODBINE  
IRISH HOLLOW FREEWAY ALTERNATE  
(Western Parts of Alternates 3,4,7,9)**

Location	ROADWAY ACCESS CHANGES		
	Roadway Relocations	Roadway Closures	Total Roadway Changes
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township	2	2-4*	4-6*
Woodbine Township	2	2	4
<b>Jo Daviess County Total</b>	<b>4</b>	<b>4-6</b>	<b>8-10</b>
<b>Total Roadway Changes</b>	<b>4</b>	<b>4-6*</b>	<b>8-10*</b>

\*The larger number would be associated only with the Upper Irish Hollow Alternates (7-10)

**TABLE 4-4  
ROADWAY ACCESS CHANGES  
U.S. ROUTE 20, FREEPORT TO WOODBINE  
FREEWAY ALTERNATE  
(Includes Eastern Parts of Alternates 1, 3, 5, 7, 9)**

Location	ROADWAY ACCESS CHANGES		
	Roadway Relocations	Roadway Closures	Total Roadway Changes
Stockton Township			0
Wards Grove Township			0
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
Erin Township	1		1
Harlem Township		1	1
Kent Township	1	2	3
<b>Stephenson County Total</b>	<b>2</b>	<b>3</b>	<b>5</b>
<b>Total Roadway Changes</b>	<b>2</b>	<b>3</b>	<b>5</b>



**TABLE 4-5  
ROADWAY ACCESS CHANGES  
U.S. ROUTE 20, GALENA TO WOODBINE  
IRISH HOLLOW FREEWAY ALTERNATE  
(Western Parts of Alternates 3, 4, 7, 9)**

Location	ROADWAY ACCESS CHANGES		
	Roadway Relocations	Roadway Closures	Total Roadway Changes
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township	2	2-4	4-6
Woodbine Township	2	2	6
<b>Jo Daviess County Total</b>	<b>4</b>	<b>4-6</b>	<b>10-12*</b>
<b>Total Roadway Changes</b>	<b>4</b>	<b>4-6</b>	<b>10-12*</b>

\*The larger number would be associated only with the Upper Irish Hollow Alternates (7-10)

**TABLE 4-6  
ROADWAY ACCESS CHANGES  
U.S. ROUTE 20, FREEPORT TO WOODBINE  
FREEWAY, STOCKTON ALTERNATE  
(Includes Eastern Parts of Alternates 2, 4, 6, 8, 10)**

Location	ROADWAY ACCESS CHANGES		
	Roadway Relocations	Roadway Closures	Total Roadway Changes
Stockton Township			0
Wards Grove Township	1		1
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>1</b>	<b>0</b>	<b>1</b>
Erin Township	1		1
Harlem Township		1	1
Kent Township	1	2	3
<b>Stephenson County Total</b>	<b>2</b>	<b>3</b>	<b>5</b>
<b>Total Roadway Changes</b>	<b>3</b>	<b>3</b>	<b>6</b>



**TABLE 4-7  
ROADWAY ACCESS CHANGES  
U.S. ROUTE 20, GALENA TO WOODBINE  
EXPRESSWAY ALTERNATE  
(Western Parts of Alternates 11 and 12)**

Location	ROADWAY ACCESS CHANGES		
	Roadway Relocations	Roadway Closures	Total Roadway Changes
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township	1	6	7
Woodbine Township	1	1	2
<b>Jo Daviess County Total</b>	<b>2</b>	<b>7</b>	<b>9</b>
<b>Total Roadway Changes</b>	<b>2</b>	<b>7</b>	<b>9</b>

**TABLE 4-8  
ROADWAY ACCESS CHANGES  
U.S. ROUTE 20, FREEPORT TO WOODBINE  
EXPRESSWAY ALTERNATE  
(Eastern Part of Alternate 11)**

Location	ROADWAY ACCESS CHANGES		
	Roadway Relocations	Roadway Closures	Total Roadway Changes
Stockton Township	3	2	5
Wards Grove Township		1	1
Woodbine Township	4	1	5
<b>Jo Daviess County Total</b>	<b>7</b>	<b>4</b>	<b>11</b>
Erin Township	1	4	5
Harlem Township	1	1	2
Kent Township	1	1	2
<b>Stephenson County Total</b>	<b>3</b>	<b>6</b>	<b>9</b>
<b>Total Roadway Changes</b>	<b>10</b>	<b>10</b>	<b>20</b>



**TABLE 4-9  
ROADWAY ACCESS CHANGES  
U.S. ROUTE 20, FREEPORT TO WOODBINE  
EXPRESSWAY, LENA ALTERNATE  
(Eastern Part of Alternate 12)**

Location	ROADWAY ACCESS CHANGES		
	<i>Roadway Relocations</i>	<i>Roadway Closures</i>	<i>Total Roadway Changes</i>
Stockton Township	3	2	5
Wards Grove Township		1	1
Woodbine Township	4	1	5
<b>Jo Daviess County Total</b>	<b>7</b>	<b>4</b>	<b>11</b>
Erin Township	1		1
Harlem Township	1		1
Kent Township	1	1	2
<b>Stephenson County Total</b>	<b>3</b>	<b>1</b>	<b>4</b>
<b>Total Roadway Changes</b>	<b>10</b>	<b>5</b>	<b>15</b>





















**TABLE 4-10**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, GALENA TO FREEPORT**  
**SUMMARY COMPARISON OF ALTERNATES**

Alternate Number	Route Description	ACCESS CHANGES FOR FARMS*		
		Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
1	Long Hollow Freeway	5	9	14
2	Long Hollow Freeway w/Stockton Alt.	5	9	14
3, 7	Irish Hollow Freeway	6	13	19
4, 9	Irish Hollow Freeway w/Stockton Alt.	6	13	19
5, 8	Irish Hollow Freeway w/Tunnel	6	12	18
6, 10	Irish Hollow Freeway w/Tunnel w/Stockton Alt	6	12	18
11	Expressway Eleroy Alt.	20	42	62
12	Expressway Lena Alt.	18	32	50

Alternate Number	Route Description	ACCESS CHANGES FOR NON-FARM RESIDENCES*		
		Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Residences Affected
1	Long Hollow Freeway	0	1	1
2	Long Hollow Freeway w/Stockton Alt.	0	1	1
3, 7	Irish Hollow Freeway	0	2	2
4, 9	Irish Hollow Freeway w/Stockton Alt.	0	2	2
5, 8	Irish Hollow Freeway w/Tunnel	0	1	1
6, 10	Irish Hollow Freeway w/Tunnel w/Stockton Alt	0	1	1
11	Expressway Eleroy Alt.	17	6	23
12	Expressway Lena Alt.	17	3	20

The Preferred Alternate is highlighted.

\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.





**TABLE 4-11**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, FREEPORT TO WOODBINE**  
**FREEWAY ALTERNATE**  
**(Includes Eastern Parts of Alternates 1, 3, 5, 7, 9)**

<b>Location</b>	<b>ACCESS CHANGES FOR FARMS*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Stockton Township			0
Wards Grove Township	1		1
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>1</b>	<b>0</b>	<b>1</b>
Erin Township			1
Harlem Township		1	7
Kent Township	2	5	0
<b>Stephenson County Total</b>	<b>2</b>	<b>6</b>	<b>8</b>
<b>Total Farms Affected</b>	<b>3</b>	<b>6</b>	<b>9</b>

  

<b>Location</b>	<b>ACCESS CHANGES FOR NON-FARM RESIDENCES*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Wards Grove Township			0
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
Erin Township			0
Harlem Township		1	1
Kent Township			0
<b>Stephenson County Total</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Total Non-Farm Residences Affected</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>TOTAL FARMS &amp; RESIDENCES AFFECTED</b>	<b>3</b>	<b>7</b>	<b>10</b>

\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.



**TABLE 4-12**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, FREEPORT TO WOODBINE**  
**FREEWAY, STOCKTON ALTERNATE**  
**(Includes Eastern Parts of Alternates 2, 4, 6, 8, 10)**

Location	ACCESS CHANGES FOR FARMS*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Stockton Township			0
Wards Grove Township	1		1
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>1</b>	<b>0</b>	<b>1</b>
Erin Township			1
Harlem Township		1	7
Kent Township	2	5	0
<b>Stephenson County Total</b>	<b>2</b>	<b>6</b>	<b>8</b>
<b>Total Farms Affected</b>	<b>3</b>	<b>6</b>	<b>9</b>

  

Location	ACCESS CHANGES FOR NON-FARM RESIDENCES*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Wards Grove Township			0
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
Erin Township			0
Harlem Township		1	1
Kent Township			0
<b>Stephenson County Total</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Total Non-Farm Residences Affected</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>TOTAL FARMS &amp; RESIDENCES AFFECTED</b>	<b>3</b>	<b>7</b>	<b>10</b>

\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.



**TABLE 4-13**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, FREEPORT TO WOODBINE**  
**EXPRESSWAY ALTERNATE (Eastern Part of Alternate 11)**

Location	ACCESS CHANGES FOR FARMS*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Stockton Township	5	6	11
Wards Grove Township	3	3	6
Woodbine Township	1		1
<b>Jo Daviess County Total</b>	<b>9</b>	<b>9</b>	<b>18</b>

Erin Township	1	7	8
Harlem Township	1	8	9
Kent Township	5	11	16
<b>Stephenson County Total</b>	<b>7</b>	<b>26</b>	<b>33</b>

<b>Total Farms Affected</b>	<b>16</b>	<b>35</b>	<b>51</b>
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Location	ACCESS CHANGES FOR NON-FARM RESIDENCES*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Stockton Township	1		1
Wards Grove Township			0
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>1</b>	<b>0</b>	<b>1</b>

Erin Township		3	3
Harlem Township		2	2
Kent Township	1	1	2
<b>Stephenson County Total</b>	<b>1</b>	<b>6</b>	<b>7</b>

<b>Total Non-Farm Residences Affected</b>	<b>2</b>	<b>6</b>	<b>8</b>
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<b>TOTAL FARMS &amp; RESIDENCES AFFECTED</b>	<b>18</b>	<b>41</b>	<b>59</b>
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\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.



**TABLE 4-14**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, FREEPORT TO WOODBINE**  
**EXPRESSWAY, LENA ALTERNATE (Eastern Part of Alternate 12)**

<b>Location</b>	<b>ACCESS CHANGES FOR FARMS*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Stockton Township	5	6	11
Wards Grove Township	3	3	6
Woodbine Township	1		1
<b>Jo Daviess County Total</b>	<b>9</b>	<b>9</b>	<b>18</b>

Erin Township		1	1
Harlem Township		4	4
Kent Township	5	11	16
<b>Stephenson County Total</b>	<b>5</b>	<b>16</b>	<b>21</b>

<b>Total Farms Affected</b>	<b>14</b>	<b>25</b>	<b>39</b>
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<b>Location</b>	<b>ACCESS CHANGES FOR NON-FARM RESIDENCES*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Stockton Township	1		1
Wards Grove Township			0
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>1</b>	<b>0</b>	<b>1</b>

Erin Township		1	1
Harlem Township		1	1
Kent Township	1	1	2
<b>Stephenson County Total</b>	<b>1</b>	<b>3</b>	<b>4</b>

<b>Total Non-Farm Residences Affected</b>	<b>2</b>	<b>3</b>	<b>5</b>
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<b>TOTAL FARMS &amp; RESIDENCES AFFECTED</b>	<b>16</b>	<b>28</b>	<b>44</b>
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\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.



**TABLE 4-15**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, GALENA TO WOODBINE**  
**EXPRESSWAY ALTERNATE**  
**(Western Parts of Alternates 11 and 12)**

<b>Location</b>	<b>ACCESS CHANGES FOR FARMS*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Rawlins Township	1	2	3
East Galena Township			0
Rice Township			0
Elizabeth Township	3	3	6
Woodbine Township		2	2
<b>Jo Daviess County Total</b>	<b>4</b>	<b>7</b>	<b>11</b>
<b>Total Farms Affected</b>	<b>4</b>	<b>7</b>	<b>11</b>

<b>Location</b>	<b>ACCESS CHANGES FOR NON-FARM RESIDENCES*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township			0
Woodbine Township	15		15
<b>Jo Daviess County Total</b>	<b>15</b>	<b>0</b>	<b>15</b>
<b>Total Non-Farm Residences Affected</b>	<b>15</b>	<b>0</b>	<b>15</b>
<b>TOTAL FARMS &amp; RESIDENCES AFFECTED</b>	<b>19</b>	<b>7</b>	<b>26</b>

\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.



**TABLE 4-16**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, GALENA TO WOODBINE**  
**LONG HOLLOW FREEWAY ALTERNATE**  
**(Western Parts of Alternates 1 and 2)**

Location	ACCESS CHANGES FOR FARMS*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Rawlins Township	1	2	3
East Galena Township			0
Rice Township			0
Elizabeth Township		1	1
Woodbine Township	1		1
<b>Jo Daviess County Total</b>	<b>2</b>	<b>3</b>	<b>5</b>
<b>Total Farms Affected</b>	<b>2</b>	<b>3</b>	<b>5</b>

Location	ACCESS CHANGES FOR NON-FARM RESIDENCES*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township			0
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Non-Farm Residences Affected</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL FARMS AND RESIDENCES AFFECTED</b>	<b>2</b>	<b>3</b>	<b>5</b>

\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.



**TABLE 4-17**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, GALENA TO WOODBINE**  
**IRIS HOLLOW FREEWAY ALTERNATE**  
**(Western Parts of Alternates 3, 4, 7, 9)**

<b>Location</b>	<b>ACCESS CHANGES FOR FARMS*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Rawlins Township	1	2	3
East Galena Township			0
Rice Township			0
Elizabeth Township	2	2	4
Woodbine Township		3	3
<b>Jo Daviess County Total</b>	<b>3</b>	<b>7</b>	<b>10</b>
<b>Total Farms Affected</b>	<b>3</b>	<b>7</b>	<b>10</b>

<b>Location</b>	<b>ACCESS CHANGES FOR NON-FARM RESIDENCES*</b>		
	<i>Moderate Access Inconvenience**</i>	<i>Severe Access Inconvenience**</i>	<i>Total Farms Affected</i>
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township			0
Woodbine Township		1	1
<b>Jo Daviess County Total</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Total Non-Farm Residences Affected</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>TOTAL FARMS AND RESIDENCES AFFECTED</b>	<b>3</b>	<b>8</b>	<b>11</b>

\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

**\*\*Definitions of Access Impact Types**

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.



**TABLE 4-18**  
**ACCESS CHANGES FOR FARMS AND RESIDENCES**  
**U.S. ROUTE 20, GALENA TO WOODBINE**  
**IRISH HOLLOW FREEWAY TUNNEL ALTERNATE**  
**(Western Parts of Alternates 5, 6, 8, 10)**

Location	ACCESS CHANGES FOR FARMS*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Rawlins Township	1	2	3
East Galena Township			0
Rice Township			0
Elizabeth Township	2	2	4
Woodbine Township		2	2
<b>Jo Daviess County Total</b>	<b>3</b>	<b>6</b>	<b>9</b>

<b>Total Farms Affected</b>	<b>3</b>	<b>6</b>	<b>9</b>
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Location	ACCESS CHANGES FOR NON-FARM RESIDENCES*		
	Moderate Access Inconvenience**	Severe Access Inconvenience**	Total Farms Affected
Rawlins Township			0
East Galena Township			0
Rice Township			0
Elizabeth Township			0
Woodbine Township			0
<b>Jo Daviess County Total</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Non-Farm Residences Affected</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL FARMS AND RESIDENCES AFFECTED</b>	<b>3</b>	<b>6</b>	<b>9</b>

\*Includes only farms and residences adjacent to existing or new U.S. Route 20.

\*\*Definitions of Access Impact Types

**Moderate Access Inconvenience**

- Relocation of driveway entrance to public road system, or
- Increase of driving distance to U.S. Route 20 of < ½ mile.

**Severe Access Inconvenience**

- New driveway in entirely different location;
- U-turn necessary for full access to U.S. Route 20;
- Residence area surrounded by roads; or,
- Increase of driving distance to U.S. Route 20 of > ½ mile.





For purposes of analysis, access impacts were divided into the following categories:

*Moderate Access Inconvenience (one or more of the following conditions):*

- Relocation of driveway entrance to public road system.
- Increase of driving distance to U.S. Route 20 of less than one-half mile.

*Severe Access Inconvenience (one or more of the following conditions):*

- New driveway in entirely different location.
- U-turn necessary for full access to U.S. Route 20.
- Residence area surrounded by nearby roads.
- Increase of driving distance to U.S. Route 20 of greater than one-half mile.

Maps of the proposed improvements superimposed on existing features were studied to develop a count of each of these types of inconvenience. Only residences and farms which would not be displaced were counted. Table 4-10 summarizes the roadway access changes for farm and non-farm residents. Tables 4-11 through 4-18 provides the access changes for farms and non-farm residences by alternate.

With all Alternates, farms will experience considerably more instances of inconvenience than non-farm residences, simply because there are more farms than non-farm residences along the rights-of-way. Alternates 1 -10 can be expected to cause significantly less inconvenience than Alternates 11 and 12. This is because the Expressway runs for much of its length along old U.S. Route 20, which has a large number of driveways for farms and residences. Alternates 1 through 10, on the other hand, are usually routed away from existing driveways to farms and residences.

### **4.1.3 Public Services and Facilities**

Major new highway projects can affect access to public services and facilities. In the project area, these consist of schools and emergency services (fire stations and ambulance services). These are discussed in the following paragraphs and are depicted on Figures 4-1 through 4-8.

#### **4.1.3.1 Schools**

There will be no school property taken by any of the alternates.

School bus routes could be slightly affected by some of the local road closures as previously discussed. However, none of those road closures are expected to cause more than minor inconvenience, which can be readily addressed by re-routing a few school bus routes, something which is normally done during each school year to adjust to changes in student residence locations.

There will be some school district tax base reductions as a result of the acquisition of private properties.

#### **4.1.3.2 Fire Protection Districts and Emergency Services**

In all but one case, the anticipated road closures will be either located near proposed interchanges, or will be mitigated by the construction of local roads, resulting in no adverse affects on access to fire protection and emergency services.

